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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,343	03/12/2004	Takahiro Saito	Q79128	5602
23373	7590	05/23/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			NGUYEN, DINH Q	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/798,343	SAITO ET AL.	
	Examiner	Art Unit	
	Dinh Q. Nguyen	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 3-5, 7, 9-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 cites "a cover arranged on an outer periphery of the casing, the cover being molded out of a soft resin containing a rubber, wherein the casing is made of a metals the outer periphery of the casing being molded out of a hard resin", both in the specification and figures 1A and 2 disclosing the cover 14/14' of soft resin conceals the envelope 12/12' of hard resin. Therefore, the outer periphery of the casing 1 cannot be molded out of both soft resin and hard resin, the soft or hard resin conceals either the others. Similarly in claim 7, the steps of molding the hard resin is performing on the outer periphery of the soft resin envelope such that the layer of hard resin is on top of the soft resin layer.

3. Claims 1, 3-5, 7, 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 cites "a cover arranged on an outer periphery of the casing, the cover being molded out of a soft resin containing a rubber,

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wherein the casing is made of a metals the outer periphery of the casing being molded out of a hard resin", both in the specification and figures 1A and 2 disclosing the cover 14/14' of soft resin conceals the envelope 12/12' of hard resin. Therefore, the outer periphery of the casing 1 cannot be molded out of both soft resin and hard resin, the soft or hard resin conceals either the others. Similarly in claim 7, the steps of molding the hard resin is performing on the outer periphery of the soft resin envelope such that the layer of hard resin is on top of the soft resin layer.

4. For the purpose of this Office action, the claims will be examined as best understood by the examiner.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 7, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by French et al. as best understood by the Examiner.

French et al discloses a fuel injector comprising a metal casing 70, a valve element 34, a valve seat 22, a soft rubber cover 110 arranged on the outer periphery of the casing 70, an envelop 98 of hard resin that conceals the outer periphery of the coil 66 and the cover 110 (see figure 1 and column 6, lines 49+).

With respect to claims 7-8, the apparatus shown by French et al is capable of performing the method or steps recited in the claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-6, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over French et al in view of Takehisa et al. as best understood by the Examiner.

With respect to claims 4, 5, 10, and 11, French teaches all the limitations of the claims except for the ratio between rubber and soft resin is 50:50. However, Takehisa discloses a ratio of 50:50 of resin to rubber (see column 5, lines 33+) and ratio of 90:20 (see column 5, lines 3+). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of French et al with the ratio between rubber and soft resin is 50:50 as suggested by Takehisa. Doing so would provide an effective material (see column 1, lines 55+).

With respect to claim 6, French et al. discloses a fuel injector comprising a metal casing 70, a valve element 34, a valve seat 22, a soft rubber cover 110 arranged on the outer periphery of the casing 70, an envelop 98 of hard resin that conceals the outer periphery of the coil 66 and the cover 110 (see figure 1 and column 6, lines 49+). French et al. does not teach the hard resin envelope concealed within the soft resin cover. It would have obvious to one having ordinary skill in the art at the time the invention was made to provide the fuel injector of French et al. with the hard resin

envelope concealed within the soft resin cover, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167.

Response to Arguments

9. Applicant's arguments filed 3/07/06 have been fully considered but they are not persuasive. The amended claims with both the soft resin and hard resin being molded on the outer periphery of the casing 1 without specifying which resin is the inner layer and which resin is on the outer or top layer, the Examiner maintaining the rejection with the French et al. reference as best understood. Furthermore, it has been held that a mere reversal of the essential working parts (soft resin vs. hard resin) of a device involves only routine skill in the art.

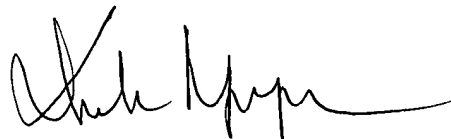
10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dinh Q. Nguyen whose telephone number is 571-272-4907. The examiner can normally be reached on Monday-Thursday 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dinh Q Nguyen
Primary Examiner
Art Unit 3752

dqn